

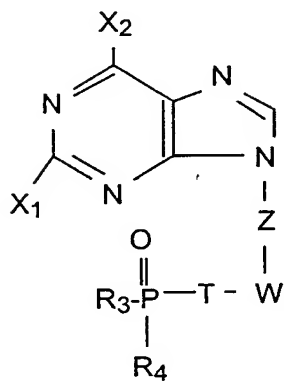
WHAT IS CLAIMED IS:

1. A compound of the formula:

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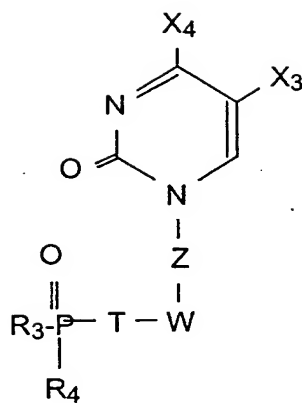
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Formula I

or



Formula II

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the stereoisomeric forms and mixtures thereof, tautomeric forms and the pharmaceutically acceptable salts thereof, wherein

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X_1 is H or NH_2 ;

X_2 is OH or NH_2 ;

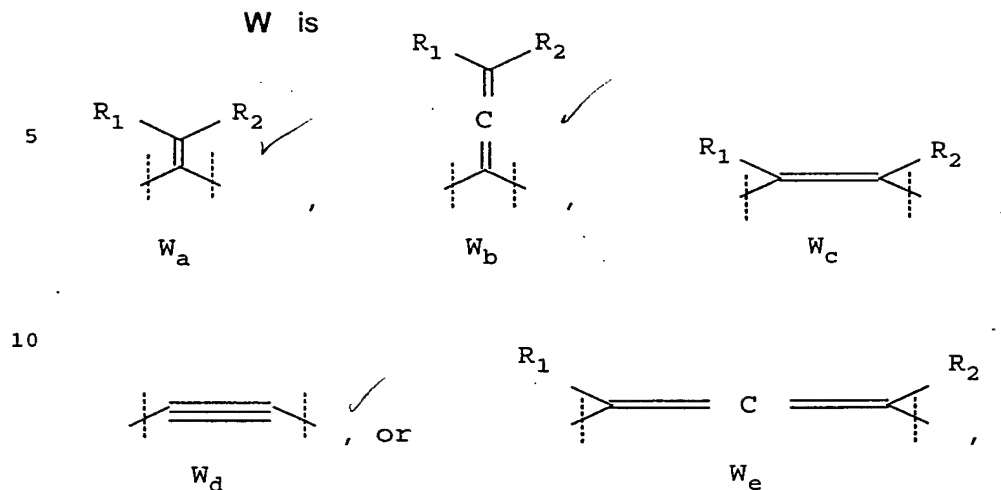
X_3 is H or CH_3 ; and

X_4 is NH_2 or OH;

Z is nothing, CH_2 , CH_2CH_2 , CH_2O , or CH_2OCH_2 ;

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wherein each of R_1 and R_2 are independently H, F or CH_2OH ;

T is nothing, T' or T'', wherein

20 T' is CH_2CH_2 , $CH=CH$, $CH_2CH(OH)$, $CH_2CH(CH_2OH)$, or $CH_2CH(CH_2F)$, and

25 T'' is $CH=CH-CH(OH)$, $CH=CH-CH(CH_2OH)$, CH_2OCH_2 , $CH_2OCH(CH_2OH)$, $CH_2CH(CH_2OH)CH_2$, $CH_2CH_2CH(OH)$, $CH_2CH_2CH(CH_2OH)$, or $CH_2CH_2CH(CH_2F)$;

30 R_3 and R_4 are each independently OH, OR_5 , OR_5' , or $-O-CH(R_6)-O-C(O)R_5$, provided that when one of R_3 or R_4 is OH the other is not $-O-CH(R_6)-O-C(O)R_5$, wherein R_5 and R_5' are each independently C_{1-15} alkyl or benzyl, and R_6 is H or $C_{1/10}$ alkyl,

provided that when T is $CH=CH$ or CH_2CH_2 , W is W_c , and Z is CH_2 , then X_1 is not NH_2 and X_2 is not OH simultaneously;

35 provided that when W is W_e , then Z is nothing or CH_2 ,

provided that when T is nothing then W is not W_c ,

provided that when Z is CH₂ and W is W_a, then T cannot be CH=CH, and

provided that when Z is nothing and W = W_c, then T is not
5 CH=CH.

2. The compound of claim 1 wherein
when W = W_a or W_b and T = T" then Z is not CH₂OCH₂;
when W = W_c or W_d and T = T' then Z is not CH₂OCH₂;
or when W = W_c or W_d and T = T" then Z is CH₂.

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3. The compound of claim 1 wherein W is W_a or W_c.

4. The compound of claim 1 wherein T is T' and T' is
CH=CH.

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5. The compound of claim 1 wherein T is T" and T" is
CH₂OCH₂.

6. The compound of claim 1 wherein Z is CH₂ or CH₂O.

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7. The compound of claim 1 wherein the compound is
E-9-(5-Dihydroxyphosphoryl-3-methylidene-4-
pentenyl)guanine;
E-9-[(4-Dihydroxyphosphoryl-2-methylidene-3-
25 butenyloxy) methyl]guanine;
9-(3-Dihydroxyphosphorylmethoxy-2-methylidene
propyl)guanine;
Z-9(4-Dihydroxyphosphorylmethoxy-2-butenyl)guanine;
9-(4-Dihydroxyphosphorylmethoxy-2-butynyl)guanine;
30 or 9-(3-Dipivaloylmethoxyphosphonylmethoxy-2-
methylidenepropyl) guanine.

8. The compound of claim 1 wherein X₁ is NH₂ and X₂ is
OH.

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9. The compound of claim 1 wherein the compound is
only from Formula I.

10. A pharmaceutical composition comprising a compound of claim 1 in combination with a pharmaceutically acceptable carrier.

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11. A compound according to claim 1 for use in the treatment of a viral infection of DNA viruses, retroviruses or viruses involved in tumor formation.

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12. A compound according to claim 1 for use as a pharmaceutically active compound.

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13. Use of a compound according to claim 1, optionally in combination with a pharmaceutically acceptable carrier for the preparation of a pharmaceutical composition for the treatment of a viral infection of DNA viruses, retroviruses or viruses involved in tumor formation.

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